GEOPELIA STRIATA.

Geopelia striata (L.), Salvad. t. c. p. 298; Tweedd. t. c. p. 322.

GALLUS VARIUS.

Gallus varius (Shaw), Elliot, Mon. Phasianidæ, ii. pl. xxxv. A hen of this Jungle-Cock.

XIII.—Note upon Three American Raptorial Birds apparently new to Science. By JOHN HENRY GURNEY.

(Plate III.)

I AM indebted to the kindness of Messrs. Salvin and Godman for the opportunity of describing, from specimens in their collection, three species of American birds of prey which, after careful examination by Mr. Salvin and myself, appear to us to be new to science.

The first of these, of which the Norwich Museum also possesses a specimen, is a *Micrastur* from the forest-region of Panama, which resembles in its dimensions and conformation *Micrastur melanoleucus** (Vieill.) = *brachypterus* (Temm.), but differs from that species in the coloration of the underparts, and also in the total absence, both in the immature and in the adult plumage, of any nuchal collar, either white or rufous.

The specimen in the Norwich Museum is wholly in immature plumage; that belonging to Messrs. Salvin and Godman is in partially immature dress, but has acquired a sufficient portion of the adult plumage to indicate the character of the fully adult dress; unfortunately, in neither instance has the sex been recorded.

The following are the principal measurements of the two specimens, in inches and tenths.

* I agree with Mr. Ridgway in considering that the specific name *melanoleucus* is probably that which is most correctly applicable to this species (*vide* Proc. Ac. Nat. Sc. Philadelphia, 1875, pp. 470, 484, also Ibis, 1875, p. 3).

	In the Collection			
	of Messrs. Salvin	In the Norwich		
	and Godman.	Museum.		
Culmen, exclusive of cere	1.0	1.1		
Wing from carpal joint	, 10.7	11.0		
Tail	10.8	10.9		
Tarsus	3.6	3.4		
Middle toe <i>s. u.</i>	2.1	2.1		

It may be convenient, in the first instance, to describe the immature Norwich specimen, in which the entire upper surface is of a uniform and unbroken dark brown, with the following exceptions, viz. — a slightly darker shade of brown on the mape; a few indistinct fulvous-brown spots on both webs of the greater wing-coverts, bastard wing, and tertials, those on the inner webs of the feathers being paler than those on the outer web; similar but larger spots, assuming the character of transverse bars, on both webs of the primaries and secondaries; and white spots on both webs of the feathers of the upper tail-coverts, taking the form in those next the tail of three transverse white bars, divided by the dark shaft of the feathers, the spots on the feathers next the rump being smaller and tinged with fulvous.

The tail is of a somewhat darker brown than the back, with four white transverse bands, divided by the dark shafts of the feathers, and also narrowly tipped with white, the lateral rectrices with a concealed white bar near the base.

The chin, throat, and upper breast are of a whole-coloured dark brown, of a similar hue to the nape; the lower breast, abdomen, flanks, and thighs of the same brown tint, but with each feather exhibiting two or three pairs of lateral spots and a narrow tip, all of which are white, with more or less of an ochraccous tinge; the under tail-coverts are similar, but with the white spots larger and broadened into transverse bars; the under wing-coverts are a whole-coloured dark brown, like the breast, except the lowest feathers, which exhibit white spots in pairs; the undersides of the quill-feathers of the wing are of a similar but duller brown, transversely and more or less regularly barred with black. The bill is slaty black, slightly mottled with dirty white about the edges of both mandibles.

The tarsi and feet are olive-brown, with a tinge of yellow towards the extremities of the toes.

The specimen in the collection of Messrs. Salvin and Godman, though older than that in the Norwich Muscum, retains nevertheless considerable portions of the immature plumage, which agree with that of the younger bird, except that the fulvous-brown spots on the wing-coverts and tertials are somewhat larger and more conspicuous; but the adult plumage is showing itself on the head, back, upper breast, and throat, all of which are in course of change from dark brown to coal-black; many feathers of the latter colour have appeared on the crown of the head; and it entirely pervades the hinder head, nape (on which there is no trace of a nuchal collar), interscapular region, sides of the neck, throat, and also the upper breast, with the exception of a very few scattered feathers of dark brown, the remains of immature plumage not yet moulted from that part.

Some new scapular feathers which have made their appearance are also wholly black; and some new secondary wing-feathers are black, with the exception of from three to four white transverse bars on the inner web; the flanks and lower breast exhibit a few new feathers, which are black, with, in some instances, two pairs of white spots, divided by the dark shaft of the feather, in others a smaller number, one such feather showing only a single white spot on one web.

The remaining portions of the plumage in this specimen are still immature.

The bill is dark slate-colour, with the exception of the base of the lower mandible, which is a yellow horn-colour; and a similar yellow tint pervades the tarsi and feet.

The prevailing dark hues of the plumage of this *Micrastur* have suggested for it the specific name of "*amaurus*," from the Greek $d\mu a \nu \rho \delta s$, dark.

The second species which I have to describe is a *Morphnus* received from Mr. C. Buckley in December 1877, and obtained by him at Sarayacu, in Ecuador.

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This specimen, which is evidently adult, or very nearly so, is in the collection of Messrs. Salvin and Godman, and is the only example of the bird which I have seen.

In conformation and dimensions it closely resembles *Morphnus guianensis*; but it differs from that species in several important details of marking and coloration, as will appear from the following description.

The sides of the head are dark slate-colour, and the erown the same, but tinged with blackish, both being darker than the corresponding parts in M. guianensis^{*}; but the dark mark behind the eye, which is conspicuous in the latter species, is in the present one scarcely distinguishable from the slatecoloured plumage which surrounds it; the feathers of the occipital crest are blackish brown, with mottled white bases, and also with narrow whitish tips, except one feather, which (as is usually the case in M. guianensis) is much longer and larger than the other portions of the crest, and in which the white tip is wanting.

The mantle is blackish brown, with conecaled mottled white bases to the feathers; the bird seems to have been killed whilst moulting, the old feathers being of a dark brown, whilst the newer are as black on their exposed portions as is the case in the adult of M. guianensis; the lesser wing-coverts are composed of such black feathers with narrow white tips as in M. guianensis; the feathers of the median coverts are, in a few instances, black where exposed, but in most cases dark brown, both being crossed with from three to four somewhat irregular white bars, which are much more conspicuous than the corresponding markings in M. guianensis.

The feathers of the bastard wing are blackish, showing on the inner web two broad bars of dark grey, marbled with a still darker shade of the same.

* The plumage of *M. guianensis*, to which I refer for comparison, is, in every instance, that of the fully adult bird. As, I believe, the colours of the soft parts in *M. guianensis* have not been recorded, I may mention that an immature bird in change, which was recently living in the Gardens of the Zoological Society, had the irides pale grey, the cere and skin near the eye slate-colour, and the tarsi and feet yellow.

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The primaries and secondaries are black, with the exception of three broad transverse bars of grey, mottled with a darker hue of the same, and browner in the older feathers than in the new, and also excepting portions of the inner webs of these feathers, which are white varied with dark grey; the tertials are similarly variegated on the inner webs, where, however, the white portions occasionally assume the form of imperfect transverse bars; but the grey cross bars, which are conspicuous on the primaries and secondaries, are absent from the tertials.

The feathers of the upper tail-coverts are brownish black, with inconspicuous white bases and tips, but are for the most part also crossed by two white transverse bars, as in *M*. *guianensis*.

The tail is blackish brown, crossed by four bars of white, mottled and tinged with brownish grey; the narrowest of these bars is that next the tail-coverts; and they successively become broader as they approach the end of the tail, which exhibits a very narrow white tip; a fifth similar but concealed bar exists near the base of the outer rectrices—the number of pale bars coinciding with those of an immature, but not very young, specimen of M. guianensis which I have examined, but being one less than I find in a fully adult example of that species.

The feathers of the chin, instead of being pure white as in M. guianensis, are of a greyish white, with dark shaft-marks; and the plumage of the throat and upper breast is very much darker than in that species, the feathers of the throat being slaty black, with very narrow whitish tips, and the upper breast being entirely black, except that some of the feathers which are adjacent to the throat have very slight whitish edgings so narrow as to be scarcely perceptible; the lower breast, abdomen, tibiæ, and under tail-coverts are conspicuously barred with transverse bands, alternately white and black, the black being, for the most part, slightly broader than the white, whereas in M. guianensis the white transverse bands are considerably broader than the dark, and the

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latter are only a pale brown, instead of a decided black as in the present species.

The under wing-coverts, which are pure white in *M. guianensis*, are crossed, in the bird now under consideration, with alternate bars of black and white, like the lower breast, except that on these coverts some of the white bars are broader than the black, especially on the feathers overlying the bases of the primaries.

The following are the principal measurements of the specimen just described :---

	inches.
Longest feather of occipital crest	4.5
Culmen without the cere	1.6
Wing from carpal joint	18.2
Tail	15.6
Tarsus	4.1
Middle toe <i>s. u.</i>	$2 \cdot 1$

I propose to call this fine species *Morphnus tæniatus*, with reference to the transverse bars on the lower breast and adjacent parts, which form so conspicuous a feature in the coloration of its plumage.

The annexed figure (Pl. III.) will afford a ready means of recognizing this well-marked species.

The third Raptorial bird that I propose to describe is a very fine Buzzard, which, on account of the variegated character of its plumage, I would call *Buteo pæcilochrous*, from the Greek $\pi o \iota \kappa \iota \lambda \delta \chi \rho o \sigma s$.

The only example of it that I have seen is in the collection of Messrs. Salvin and Godman, and was received from Mr. Buckley in December 1877, who obtained it at Yauayacu, in the State of Ecuador. It bears a considerable resemblance on its upper surface to the adult female of *Buteo erythronotus*, and on its under to some examples of *Buteo hypospodius*; but in most of its dimensions, and especially in the length of the wing, it exceeds both these species, as will be seen by the following table of measurements in inches and tenths :—



J.G.Keulemans lith.

	Culmen without cere.	Wing from carpal joint.	Tail.	Tarsus.	Middle to u , s ,
B. pæcilochrous (sex					
unknown)	1.1	19.0	9.7	3.4	2.0
Seven females of B .					
ery thronotus in the					
Norwich Museum					
and Collection of					
Messrs. Salvin &					
Godman	$1 \cdot 1 - 1 \cdot 2$	$16 \cdot 4 - 16 \cdot 9$	8.5 - 9.3	3.1-3.4	1.2 - 1.8
Six specimens of B .					
hypospodius, as					
given in 'The					
Ibis' for 1876,					
p. 76	1.1	16.5 - 17.7	6.8 - 7.1	3.4 - 3.6	1.5 - 1.75

The following are the relative lengths of the first six primaries in Messrs. Salvin and Godman's specimen of B. pacilochrous:—the 4th is the longest, the 3rd the next, then successively the 5th, the 2nd and 6th, which are equal, and the 1st.

The coloration of this specimen may be thus described :---The crown and sides of the head are of a slaty black; the nape, upper scapulars, and interscapulars are rich rufous, varied with slaty black shaft-marks, which, on most of the feathers. and especially on those of the nape, are of considerable breadth; the lower scapulars are dark slate-eolour, transversely barred with white on the basal portion, and elsewhere irregularly edged, barred, and sometimes spotted, with rufous; the wingcoverts and tertials are dark grey, irregularly barred on the basal portion with white transverse markings, and on the terminal and more exposed moiety of the feather with similar but somewhat more regular bars of slaty black; the secondaries are grey, barred with slaty black, and mottled with white at the tip, and also on the outer edge of the inner web; the primaries are coloured similarly to the secondaries, but of a darker grey, especially on the terminal portion, and with only very narrow and inconspicuous pale tips; the back is dark slaty brown, edged with rufous; the feathers on the rump are similar, except that they are irregularly barred

with white; the upper tail-coverts nearest to the body are greyish white, with slaty black transverse bands; those next the tail are pure white, with transverse bands similarly coloured but narrower; the upper surface of the tail is white, crossed by narrow dark grey bars, twelve in number on the central, and fourteen on the exterior pair of rectrices; below the lowest of these transverse bars are three subterminal bands, the uppermost white, the next and broadest black, and the third grey, the tip of the tail being white.

The cheeks, chin, and throat are a dark slate-colour, as is also the region of the crop, with the exception, as regards the latter, of irregular white tips to some of the feathers; the breast, abdomen, flanks, tibiæ, and under tail-coverts, as also the under wing-coverts and axillary plumes, are all alternately barred with transverse markings of white and slate-colour, this barring is finer and less coarse on the tibiæ than elsewhere, and is most regular on the under wing-coverts, the white predominates on the under tail-coverts, and the slatecolour on the breast; but it is there mingled, on many of the feathers, with rich rufous, and these particoloured feathers are only slightly tipped with white; a faint tinge of rufous also appears on some of the feathers of the abdomen.

XIV.—Note on an unusually rufescent Example of Archibuteo hemiptilopus, Blyth. By JOHN HENRY GURNEY.

A SPECIMEN of Archibuteo hemiptilopus* having been lately added to the Norwich Museum, which presents a much more rufous aspect of plumage than any example which had previously come under my notice, I think it desirable to place some particulars respecting it on record in the pages of 'The Ibis.'

It was obtained in Thibet in September 1874, and passed into the hands of Mr. Mandelli, and from him, by exchange, into those of my late valued friend Mr. Andrew Anderson, upon whose decease it was acquired by the Norwich Museum.

* I use Mr. Blyth's specific name for this Buzzard for the reason which I have already given in 'The Ibis' for 1876, p. 371.